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September 11, 2017 13:00 ET

HURRICANE HARVEY MANAGEMENT REPORT

Information contained in this report reflects HQ and regional reporting from the most recently completed operational period as well as other reports provided by HQ, regional and interagency sources. The Senior Leadership Briefing and DHS Component Actions Reports are attached.

National Incident Management Objectives

- Objective 1: Ensure that health and safety of the EPA response is considered at all times.
- Objective 2: Establish an incident management structure and processes employing the Incident Command System to enable effective overall management of the event with deployment of resources (staff and equipment) in a rapid, aggressive and well-coordinated manner.
- Objective 3: Ensure prompt review and processing of Fuel Waiver requests.
- Objective 4: Prepare for and provide Rapid Assessment of industrial facilities as requested by the States or under EPA's statutory program responsibilities for CERCLA Superfund, RMP and FRP facilities. Working with agencies in affected States, contact industrial sources within the impacted areas to determine their operational status and determine what support can be provided with the monitoring of the start-up of industrial sources along the coastal areas.
- Objective 5: Prepare for and provide Rapid Assessment & Technical Assistance Drinking Water & Wastewater facilities as requested by the State or local government. EPA will support State agencies in contacting drinking water and waste water systems.
- Objective 6: Prepare a Sustained Response Plan that outlines the resource and equipment needs for a long duration response.
- Objective 7: Activate the Agency's Crisis Communication Plan to insure effective and efficient coordination of all incident communications.
- Objective 8: Encourage a collaborative federalism approach, where national state and local governments interact cooperatively and collectively to solve common problems.

Executive Summary

- EPA Environmental Justice Director will visit Houston/Galveston, Port Arthur, and the Alabama-Coushatta tribe between September 11th and 13th. On September 12th, EPA will update community environmental justice advocates via conference call and TCEQ/EPA will meet with environmental advocates in Austin.
- EPA Office of Emergency Management Director and OMB Budget Manager will tour EPA's command post, the Houston laboratory, the Trace Atmospheric Gas Analyzer (TAGA) mobile laboratory, and the San Jacinto Waste Pits Superfund site on September 11th.
- EPA has assigned a Regional Recovery Support Function (RSF) Coordinator to participate in the Regional Interagency Recovery Meeting at the Joint Field Office (JFO) on September 11th. The RSF Coordinator will be at the JFO to provide input to the recovery effort.
- EPA plans to complete sampling of the 34 Superfund sites in Texas potentially impacted by the storm by September 13th. Preliminary analytical results should be available by September 16th. EPA is preparing a plan and schedule to complete sampling of the nine Superfund sites in Louisiana that were potentially impacted by the storm.
- EPA has confirmed 21 of the 39 disaster declaration counties are currently providing private well testing for area residents. Texas Department of State Health Services also offer bacteria testing at a low cost through the state lab.
- Community Liaisons (CLs) are assisting citizens of impacted counties by providing information about dealing with the environmental hazards of returning to flood damaged homes as well as obtaining input about other challenges or concerns.
- R6 will begin collection and staging of recovered orphan containers on September 11th. They anticipate completion in Corpus Christi, Houston, and Beaumont over the next 30 days.

Region 6 Significant Activities:

The R6 REOC is currently activated and working under a limited Emergency Support Function (ESF) 10 FEMA Mission Assignment (MA). EPA has received MA's for over \$10.3 million for recovery operations to include assisting TX with drinking water, wastewater, and hazmat recovery operations. FEMA announced plans to fund mission assignments in five day increments.

Mission Assignment Number	Funding Amount	Description of Assignment
MA4332DRTX3	\$10,092,000	R6 Field Ops incl. assessing drinking & waste water infrastructure, implementation of Response Manager tracking system, response to hazardous substance releases and oil discharges.
MA4332DRTX1	\$275,000	Deployment of EPA to various locations, including but not limited to TX EOC and the FEMA RRCC to support response operations.
Total Funds	\$10,367,000	

Number of R6 Personnel Involved:

Personnel	EPA R6 Dallas	FEMA Denton	Texas JFO Austin	TX SOC Austin	TCEQ Austin	Houston	Corpus Christi	Beaumont/ Port Arthur	Totals
R6	52	0	3	3	0	73	14	8	153
START	8	0	0	1	1	13	10	5	38
ERRS	0	0	0	0	0	19	6	5	30
Other Contractor	1	0	0	0	0	0	0	0	1
TOTAL	61	0	3	4	1	105	30	18	222

Container Recovery Operations:

This chart includes daily and cumulative data on container recovery.

Date	Containers				Total
	Drums (55gal)	Small Containers (<55gal)	Large Containers (>55gal)	Cylinders	
9/9/2017	17	5	0	1	23
Total to Date	74	36	8	18	136

Houston, TX:

Hazard Evaluation (HE) Teams identified nine sites with potential hazards in Brazoria County and Matagorda County. Assessments are 100% complete in Liberty, Austin, Waller, Chambers, Montgomery, Fort Bend, Galveston, Bastrop, Lee, Fayette, Colorado, Wharton, Walker, Matagorda, Harris and Brazoria Counties. The HE Group intends to keep teams on standby if needed for future operations.

The Air Recon Team conducted an overflight of Sargent, Freeport, Chocolate Bayou, Galveston and Houston and photographed 32 vessels and located potential staging areas. They identified four new sites with potential hazards. ASPECT (Airborne Spectral Photometric Environmental Collection Technology) continued to survey drinking water, wastewater, and other Risk Management Program (RMP) facilities and is expected to be complete the requested surveys this week.

Valero Houston Refinery's Tank #3, Tank #228 (pinhole leak) and barge loading areas are the only potential sources of volatile organic compounds (VOC). Valero has a contractor coming to degas Tank #3. The TCEQ/EPA personnel who visited Valero detected no strong odors coming off the #3 tank. TCEQ has no plans to do additional air monitoring unless a complaint is received. Valero is conducting daily perimeter and community air monitoring. Valero is to notify EPA/TCEQ of barge loading operations are conducted in case of citizen complaints.

Beaumont, TX:

HE Teams conducted assessments in Cook Lake, Vidor, Beaumont Yacht Club, Angelet Marina, Orange and Neches City and located 12 sites with potential hazards including 7 vessels. The Branch prepared the staging pad to receive orphan containers from recovery operations. The Emergency Response team completed the removal of oil released from an antique train in Bryan Park in Port Arthur, TX. The incident was reported to EPA by the Jefferson County Emergency Manager.

Emergency Response:

Daily/Cumulative Summary of Hazard Evaluations/Recovery				
Status	Opened		Closed	
	9/10/2017	Number of Targets Remaining Open	9/10/2017	Cumulative
Corpus Christi Branch	5	12	0	88
Houston Branch	29	250	1	69
Port Arthur/Beaumont Branch	14	62	1	8
NRC Reports	0	2	0	2
TOTALS	48	326	2	167
Note: Open means the target is yet to be recovered. Closed means the target was recovered/left in place or access was denied to collect the item.				

Daily/Cumulative Summary of Vessels				
Status	Opened		Closed	
	9/10/2017	Number of Vessels Remaining Open	9/10/2017	Cumulative
Corpus Christi Branch	33	433	22	151
Houston Branch	2	58	1	11
Port Arthur/Beaumont Branch	37	42	1	5
NRC Reports	0	9	1	6
TOTALS	72	542	25	173

Daily/Cumulative Summary of Spills/Discharges (Non-vessels)				
Status	Opened		Closed	
	9/10/2017	Number of Facilities/Spills Remaining Open	9/10/2017	Cumulative
Corpus Christi Branch	1	13	1	36
Houston Branch	4	48	1	35
Port Arthur/Beaumont Branch	2	16	0	10
NRC Reports	2	146	5	51
TOTALS	9	223	7	132

Field Response Activities

Field Teams on 9/10/2017				
Teams	Alpha	Bravo	Charlie	TOTAL
Hazard Evaluation	1	3	3	7
Oil Discharge Assessment	2	5	1	8
ER/Orphan Container Recovery	1	9	1	11
Oil/Vessel Recovery	2	0	0	2
Staging Areas	1	1	0	2
Air Operations	0	1	0	1
Air Monitoring	0	3	0	3
Water Infrastructure Assessment – Drinking Water	0	10	1	11
Water Infrastructure Assessment – Wastewater	0	5	0	5
TOTAL	7	37	6	50

EPA Headquarters Significant Activities:

The HQ EOC is activated to Level 1 in support of the Region 6 response to Harvey. The HQ EOC is coordinating with Region 6 and other Federal agencies. The HQ EOC has deployed personnel to the FEMA NRCC to staff the ESF #10 desk. EPA Senior Management that comprise the Policy Coordinating Committee (PCC) developed and issued senior management objectives that form the basis of field strategy and tactics in response to Harvey.

Headquarters Mission Assignments:

Mission Assignment Number	Funding Amount	Description of Assignment
MA4332DRTX1	\$10,000	FEMA HQ ESF-10 Desk Support
4332DRTXEPA02	\$40,000	FEMA HQ ESF-10 Desk Support
Total Funds	\$50, 000	

Number of HQ Personnel Involved in the EOC:

Personnel	AO	OAR	OCFO	OCSPP	OECA	OEI	OGC	OLEM	OP	ORD	OW	ATSDR	Totals
Employees	1	1			2	1	1	16	1	2	2	1	28
Contractors						3		3					6
TOTAL	1	1			2	4	1	19	1	2	2	1	34

National Incident Management Team (N-IMAT):

EPA activated and deployed the N-IMAT (highly skilled response personnel from Regions 3, 4, and 5) to advise and assist R6 with response activities. N-IMAT is now located in Corpus Christi. The N-IMAT completed its assignment to establish an initial structure to respond to Hurricane Harvey. Eleven key leadership positions were established and are now staffed by other personnel allowing N-IMAT to demobilize. N-IMAT personnel will fully demobilize from Corpus Christi on September 11th.

Criminal Investigation Division (CID):

EPA's Criminal Investigation Division (CID) Quick Reaction Team (QRT), now comprised of 22 EPA-CID Special Agents, is supporting the Houston Police Department in the area of Buffalo Bayou under ESF 13. QRT joins several hundred federal law enforcement officers from multiple departments and agencies in TX supporting ESF-13 missions. Several QRTs under ESF 13 are being re-routed and re-tasked to support Hurricane Irma.

Superfund NPL Sites:

EPA directed potentially responsible parties or independently started collecting samples at 34 Texas Superfund Sites to confirm no releases due to storm impacts. EPA field teams arrived on September 8th, and will be joined by additional field teams on September 11th. Sampling has been completed at 11 sites. The sampling is part of a longer-term assessment that will be used to transition sites to their normal cleanup operations. Sampling will be complete by September 13th, with preliminary un-validated results expected by September 16th. EPA is preparing a plan and schedule to complete sampling of the nine Superfund sites in Louisiana that were potentially impacted by the storm.

- All 43 Federal Superfund NPL Sites in the affected area have been assessed. Of these, 41 sites have been cleared, and two sites (San Jacinto Pits and US Oil Recovery) require additional follow-up.
 - San Jacinto Waste Pits: Cap repairs are complete on the western part of Southern Berm while repairs continue on the remaining berm sections. Manual probing of capped areas, with oversight by the EPA Dive Team, continues and is expected to be completed September 11th. Three areas on the northwest part of the cap have been identified for further investigation. The Dive Team is planning to enter the water on September 11th and will collect sediment samples.
 - US Oil: The potentially responsible party continues to pump down Lift Station #1 to maintain freeboard and coordinate repair/replacement of the damaged/displaced plugs in the piping in the lift station and sand filter. The freeboard level in the lift station is close to being stabilized.

EPA Laboratory/Analytical Services:

EPA's TAGA vehicle was repaired on September 9th and is back online.

Air Monitoring

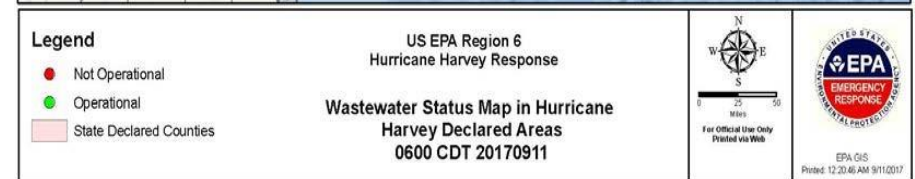
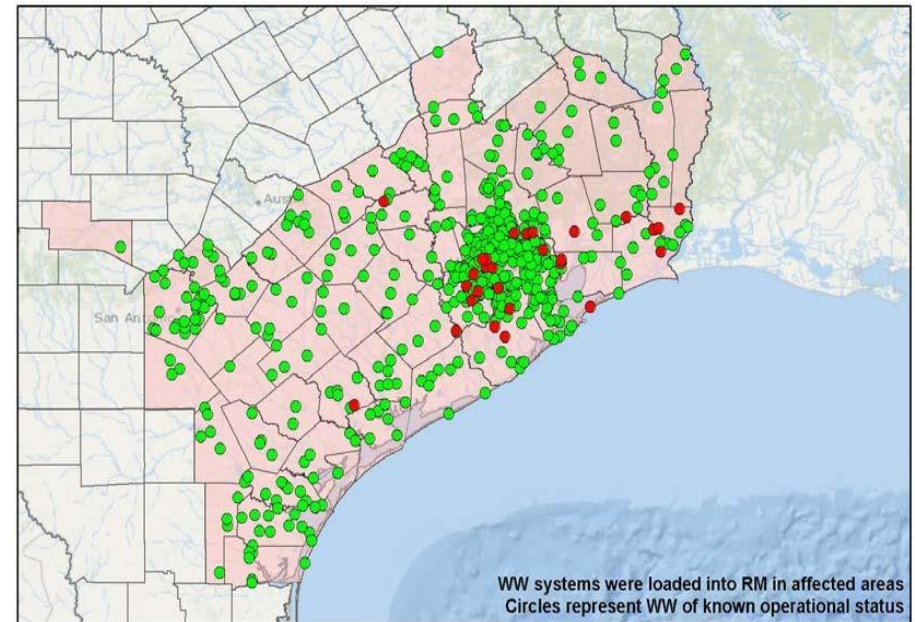
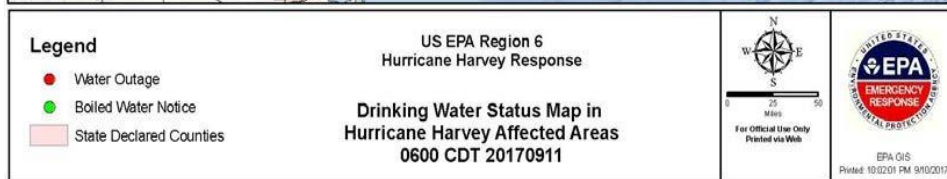
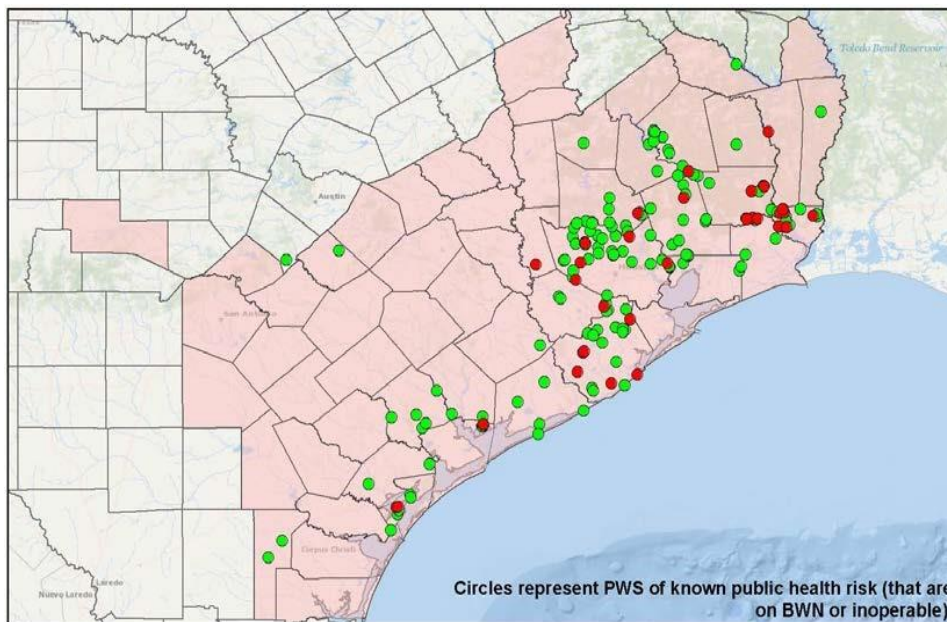
The four EPA air quality technical specialists deployed to Houston conducted total VOC area monitoring with the TAGA mobile laboratory. They monitored in the Manchester area between Pasadena Refining Systems Inc. (PRSI) and Kinder Morgan's Pasadena Terminal. The team detected benzene below levels of concern at all three locations. Additional monitoring will continue, in an effort to identify the source.

Weather conditions permitting, the TAGA will monitor around additional facilities, not yet monitored. Monitoring is planned for the following facilities by the TAGA: Huntsman, Eco Services Operations, Goodyear, Flint Hills Resources – Houston Chemical Plant, and the TPC Group – Houston Plant. If significant readings are identified, additional monitoring will be conducted by the EPA field team.

Drinking Water/Wastewater Assessments:

EPA is providing support to TCEQ for drinking water and wastewater system assessments. Ten EPA personnel are conducting drinking water assessments in the Houston Branch, five personnel are conducting wastewater assessments in the Houston Branch and one person is conducting drinking water assessments in the Port Arthur/Beaumont Branch.

Drinking Water and Waste Water Assessments (as September 10 th)		
Assessment Types	Daily Assessments	Total Assessments
On-Site DW Assessments	44	391
On-Site WW Assessments	24	265
Phone DW Assessments	33	5033
Phone WW Assessments	4	3027



Other EPA Activities

Fuel Waivers:

Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
Reid Vapor Pressure Requirements Waivers				
TX	Letter from TCEQ requesting a waiver of the RVP, RFG and TxLED standards in the Governor's Disaster Proclamation	8/25/17	Granted on 8/25/17	https://www.epa.gov/enforcement/eastern-and-coastal-texas-fuels-waiver
GA	Amended letter from GA Department of Natural Resources for Atlanta RVP to waive 7.8 RVP requirement to 11.5 RVP	8/29/17	Granted on 8/29/17	https://www.epa.gov/enforcement/louisiana-fuels-waiver
LA	Letter from LA governor requesting a waiver of the low RVP requirements.	8/28/17	Granted on 8/28/17	https://www.epa.gov/sites/production/files/2017-08/documents/louisianafuelswaiver082817.pdf
AR	The state is drafting a waiver request to temporarily waive the requirement for low 9.0lb RVP fuel.	8/31/17	N/A	N/A
OK	A statewide low RVP fuel waiver request was submitted and then the request was amended.	8/28/17	8/30/17	https://www.epa.gov/enforcement/second-multi-state-fuels-waivers
Dyed NRLM Diesel Fuel Waiver				

Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
TX	Letter from TX comptroller requesting a waiver of using dyed NRLM diesel fuel in motor vehicles.	8/29/17	Granted on 8/29/17; IRS expanded to cover all of TX on 9/3/17	https://www.epa.gov/enforcement/texas-diesel-waiver
Florida	Florida Department of Environmental Protection requests use of 15 parts per million sulfur non-road diesel to be used as highway diesel fuel, waiving red dye requirements	9/6/17	Granted 9/6/17 through 9/22/17	URL pending
Low Volatility Conventional Gasoline and Reformulated Gasoline (RFG)				
CT, ME, MA, NH, RH, VT, DE, DC, MD, NJ, NY, and PA, FL, GA, NC, SC, VA, and WV; all mid-western states located in *PADD 2 - IL, IN, IA, KS, KY, MI, MN, MO, NE, ND, SD, OH, OK, TN, and WI; and all Gulf coast states located in PADD 3 -AL, AR, LA, MS, NM, and TX	Issuance of waivers based on requests for the allowance of regulated parties within the listed states to produce, sell, or distribute conventional winter gasoline (including BOBs) with an RVP of 11.5 psi before the addition of any ethanol in any RFG covered area. The waiver for El Paso goes until September 16 th due to their State Implementation Plan requirements.	8/30/17	Granted on 8/31/17 Extended to 9/26/17.	https://www.epa.gov/enforcement/second-multi-state-fuels-waivers

***PADD: Petroleum Administration for Defense Districts**

Communications:

The Crisis Communication Plan remains activated. EOC PIO continues to work on posting fact sheets on a variety of response topics, portraying EPA's role in the disaster and how each office provides support.

The EPA Liaison to the City of Houston Mayor's Office provided an update on EPA operations to Mayor Turner at the Emergency Operations Center's Senior Leadership meeting Friday, September 8th. This was the final Senior Leadership meeting, as several city departments will be returning to normal

hours and operations. The remaining agencies and departments were planning to conclude operations at the Emergency Operations Center on Sunday September 10th. The EPA Liaison will demobilize on Monday, September 11th.

R6 PIO and Data Management created a *Region 6 Hurricane Harvey - Public Story Map*. The map is located at this link:

<https://epa.maps.arcgis.com/apps/MapJournal/index.html?appid=fadbae6b2832436fb65ca497bd75b9a6>

As of September 10th, a total of 39 Community Liaisons (CLs) have been deployed to impacted areas. Tasks include touching base with various response organizations in each of the 39 declared counties and providing information for use in the recovery process.